Annexure–I

Pro-forma for furnishing Actual annual performance/operational data for the coal/lignite based thermal generating stations for the 5-year period from 2017-18 to 2021-22

S.N	Particulars		Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Name of Company			NTPC Ltd.				
2	Name of Station/ Pit head or Non- Pit head			Singrauli Super Thermal Power Station (Pit-Head)				
	Stage			Single Commercial Stage Station				
3	Installed Capacity and Configuration		MW	5 X 200 +2 X 500 = 2000 MW				
3.1	Date of Commercial Operation - Unit Wise			U1- 01.06.1982, U2- 01.02.1983, U3- 01.07.1983, U4- 01.01.1984, U5- 01.06.1984, U6- 01.07.1987, U7- 01.05.1988				
3.2	Effective COD			01.05.1988				
	Make of Turbine			5 X 200 (BHEL) & 2 X 500 (BHEL)				
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)			Stage # I : Boiler: Balanced Draft, Natural circulation , Tilting Tangentially Firing Make: BHEL ; Turbinr : LMZ Design,Impulse Turbine, Nozzle Governing Steam: 130 Kg/cm2 temp-530 C at turbine inlet Stage#2 : Boiler: Controlled circulation, Tilting Tangentially Firing Make: BHEL; Turbine : KWF design BHEL Make Steam: 170 Kg/cm2 temp-537 C at turbine inlet				
5	Type of BFP			Stage-I - Electric Driven Stage-II -Steam Driven				
	Quantity		Nos.	Stage-1: 15 MDBFP in all 5 units of 200 MW, Stage-II: 4 TDBFP + 2 MDBFP in all 2 Units of 500 MW				
6	Circulating water system			Open Cycle				
7	Any other Site specific feature							
	Design Unit heat rate		Kcal/Kwh	Stage-1: 2343, Stage-2: 2281				
	Design Boiler efficiency		%	Stage-1:87.49%, Stage-2: 86.63%				
	Design Turbine cycle heat rate		Kcal/Kwh	Stage-1: 2050, Stage-2: 1976				
8	**Fuels :**							
8.1	**Primary Fuel :**			Coal				
8.1.1	Annual Allocation under FSA		LMT	Annual allocation with NCL for Singrauli - 115 LMT				
	Annual Consumption		LMT	100.91	92.49	99.91	94.84	94.62
	Annual Requirment at NAPAF		LMT	101.29	92.87	96.97	94.17	97.07
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal			Source: Northern Coal fields limited / 11.5 MMT / G7 to G10				
8.1.2.1	FSA	LoA	LMT	100.32	90.73	98.99	95.45	95.05
		MoU	LMT	-	-	-	-	-
8.1.2.2	Imported		LMT	-	-	-	-	-
8.1.2.	Spot Market/e-auction		LMT	-	-	-	-	-
8.1.3	Transportation Distance of the station from the sources of supply		KM	6 KM				
8.1.4	Mode of Transport			MGR/Rail				

8.1.5	Maximum Station capability to stock primary fuel (for days consider availability as NAPAF)		Days & LMT	19 Days / 5.15 LMT				
8.1.6	Maximum stock maintained for primary fuel		MT	813120	751505	559823	489262	510805
	Date			2-Jun-17	31-Jul-18	7-Apr-19	28-Mar-21	25-Jan-22
8.1.7	Minimum Stock maintained for primary fuel		MT	344299	518368	186966	260022	106795
	Date			21-Sep-17	21-Mar-19	8-Oct-19	11-Jul-20	30-Sep-21
8.1.8	Average stock maintained for primary fuel		MT	596315	637574	365324	439172	348233
8.2	**Secondary Fuel :**							
8.2.1	Annual Allocation/ Requirement		KL	8760	8760	8784	8760	8760
8.2.2	Sources of supply			IOCL	IOCL	IOCL	IOCL	IOCL
8.2.3	Transportation Distance of the station from the sources of supply		KM	-	-	-	-	-
8.2.4	Mode of Transport			RAIL	RAIL	RAIL	RAIL	RAIL
8.2.5	Maximum Station capability to stock secondary fuels		KL	17,000	17,000	17,000	17,000	17,000
8.2.6	Maximum Stock of secondary oil actually maintained		KL	5,433	5,327	5,200	5,979	6,133
8.2.7	Minimum Stock of secondary oil actually maintained		KL	2,139	2,294	90	2,883	2,490
8.2.8	Average Stock of secondary oil actually maintained		KL	3,842	4,153	2,335	4,209	4,481
9.1	Cost of Spares capitalized in the books of accounts		(Rs. Lakh)	7,041	9,273	4,046	8,134	7,613
9.2	Cost of spares included in capital cost for the purpose of tariff		(Rs. Lakh)	0	0	0	0	0
9.3	Initial spares-list, quantity and cost		(Rs. Lakh)	0	0	0	0	0
9.4	Maintenance spares - cost		(Rs. Lakh)	6,704	6,507	6,810	6,967	6,456
9.5	Other spares procured with high lead procurement time		(Rs. Lakh)	1,360	4,991	2,358	6,351	8,240
10	**Generation :**							
10.1	-Actual Gross Generation at generator terminals		MU	14,781.76	14,798.12	15,332.83	14,959.52	14,454.05
10.2	-Actual Net Generation Ex-bus		MU	13,616.40	13,610.11	14,120.18	13,735.22	13,263.34
10.3	-Scheduled Generation Ex-bus		MU	13,538.05	13,560.00	14,213.04	13,738.52	13,226.49
11	Average Declared Capacity (DC)		MW	1,603.08	1,627.23	1,631.85	1,576.89	1,550.51
		DC HD peak	%	-	-	-	81.38	71.62
		DC HD offpeak	%	-	-	-	81.56	72.32
		DC LD peak	%	-	-	-	85.98	87.06
		DC LD-off peak	%	-	-	-	86.03	87.31
	Actual Declared Capacity		MU	14,042.98	14,254.58	14,334.18	13,813.54	13,582.49
	Deemed Declared Capacity							
12	Actual Auxiliary Energy Consumption excluding colony consumption		MU	1,140.17	1,164.98	1,191.07	1,204.95	1,172.42
13	Actual Energy supplied to Colony from the station		MU	25.20	23.03	21.58	19.42	18.09
	Actual energy supplied to construction activities		MU	-	-	-	-	0.20
	Actual energy supplied to long term and medium term beneficiaries		MU	13,452.67	13,504.15	13,190.45	13,104.16	12,692.64
	Actual energy supplied in short term							
	Energy supplied under bilateral arrangements							
	Energy supplied through exchanges		MU	8.17	12.03	10.06	23.91	2.40
	Energy supplied under DSM		MU	78.34	50.11	(92.86)	(3.30)	36.85
	Energy supplied SCED		MU			481.45	598.48	540.25
14	**Primary Fuel :**							
14.1	Consumption **:**		MT	1,00,91,168	92,48,878	99,91,141	94,83,653	94,62,482
14.1.1	Domestic coal	From Linked Mines	MT	84,87,301	87,66,615	99,91,141	94,83,653	93,42,265
		From Non-Linkd Mines	MT	16,03,867	4,82,263	-	-	1,20,217
		From Integerated Mines	MT	-	-	-	-	-
14.1.2	Imported coal		MT	-	-	-	-	-
14.1.3	Spot market/e-auction coal		MT	-	-	-	-	-
14.2	Gross Calorific Value (GCV) :							

14.2.1	Domestic Coal (for each type)	(As Billed) - EM Basis as per third party	kCal/kg	3,925	4,593	4,308	4,401	4,508
		(As Received) - TM Basis as per third party	kCal/kg	3,518	3,819	3,695	3,802	3,760
14.2.2	Imported Coal	(As Billed) - ADB Basis	kCal/kg	NA	NA	NA	NA	NA
		(As Received) - ADB Basis	kCal/kg	NA	NA	NA	NA	NA
14.2.3	Spot market/e- auction coal	(As Billed)	kCal/kg	NA	NA	NA	NA	NA
		(As Received)	kCal/kg	NA	NA	NA	NA	NA
14.2.4	Weighted Average Gross Calorific value (Domestic+Imported+Spot/e-auction) **(As Billed)**		kCal/kg	3,925	4,593	4,308	4,401	4,508
14.2.5	Weighted Average Gross Calorific value (Domestic+Imported+Spot/e-auction) **(As Received)**		kCal/kg	3,518	3,819	3,695	3,802	3,760
	Ash content in coal (%)		%	34.70	31.20	32.40	31.60	32.30
14.3	**Price of coal :**							
	Billed Cost (including adjustments)							
	Amount Charged by transporting agency upto delivery point							
14.3.1	Weighted Average Landed price of Domestic coal		(Rs/MT)	1,860	1,978	1,945	1,996	2,119
	Components of landed cost and break up	Amount charged by Coal company	(Rs/MT)	1,798	1,953	1,844	1,963	2,073
		Transport charges	(Rs/MT)	36	18	6	6	18
		Other charges	(Rs/MT)	26	7	95	27	28
14.3.2	Weighted Average Landed Price of Imported coal		(Rs/MT)	NA	NA	NA	NA	NA
	Components of landed cost and break up			NA	NA	NA	NA	NA
14.3.3	Weighted Average Landed Price of Spot market / e-auction coal		(Rs/MT)	NA	NA	NA	NA	NA
	Components of landed cost and break up			NA	NA	NA	NA	NA
14.3.4	Weighted Average Landed Price of all the Coals		(Rs/MT)	1,860	1,978	1,945	1,996	2,119
14.4	Blending :		% and MT (of the total coal consumed)					
	Blending ratio of imported coal with domestic coal		Equivalent to domestic coal	0	0	0	0	0
14.4.2	Proportion of e-auction coal in the blending		% & MT	0	0	0	0	0
	Coal stockyard capacity		LMT	8.00	8.00	6.00	5.15	5.15
14.5	Actual daily Average Coal stock maintained		LMT	5.96	6.38	3.65	4.39	3.48
			Days	21.83	25.33	13.41	16.60	13.02
14.5	**Actual Transit & Handling Losses for coal/Lignite**							
14.5.1	**Pit- Head Station**							
14.5.1.1	Transit loss from linked mines		%	0.200	0.190	0.190	0.200	0.200
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.		%	NA	NA	NA	NA	0.800
14.5.1.3	Transit loss of imported coal		%	NA	NA	NA	NA	NA
14.5.2	**Non-Pit Head station**			NA	NA	NA	NA	NA
14.5.2.1	Transit loss from linked mines		%	NA	NA	NA	NA	NA
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.		%	NA	NA	NA	NA	NA
14.5.2.3	Transit loss of imported coal		%	NA	NA	NA	NA	NA
15	**Secondary Fuel Oil :** (If more than one fuel usedthen give details of all the fuels separately)							

15.1	Consumption	HFO	KL	3,556	2,129	-	-	-
		HSD	KL	172	1,594	3,829	4,439	4,944
15.2	Weighted Average Gross Calorific value **(As received)**	HFO	(kCal / Lit.)	9,978	9,980	-	-	-
		HSD	(kCal / Lit.)	10,600	10,446	10,474	10,500	9,760
15.3	Weighted Average Price	HFO	(Rs / KL)	31,741	-	-	-	-
		HSD	(Rs / KL)	45,705	53,667	49,961	43,680	58,366
15.4	Actual Average stock maintained	HFO	KL	3,842.37	2,334.67	4,153.17	4,208.88	4,480.65
		HSD	KL	-	-	NA	NA	NA
16	**Weighted average duration of outages(unit-wise details)**:							
16.1	Planned Outages		(Days)	13.30	20.74	18.35	20.81	36.03
16.2	Forced Outages		(Days)	11.68	9.41	4.63	11.70	19.44
	Within control of generator			0.06		0.24	0.27	0.30
	beyond control of generator			11.62	9.41	4.39	11.43	19.14
16.3	Number of tripping		Nos.	38	31	29	49	38
16.4	Number of start-ups**:**		Nos.	49	37	44	61	51
16.4.1	Cold Start-up		Nos.	12	14	27	34	27
16.4.2	Warm Start-up		Nos.	23	18	6	16	11
16.4.3	Hot start-up		Nos.	14	5	11	11	13
17	NOx , SOx ,and other particulate matter emission in **:** at conditions							
17.1	Design value of emission control equipment (specify conditions)		mg/Nm^3	Norms as per MoEF&CC: SOx - 200 MW Units: 600; SOx - 500 MW Units: 200; NOx: 600				
	FGD installation date			FGD installation work is under progress				
	NOX Control system installation date			NA	NA	NA	NA	NA
17.2	Actual emission (Stage-I)	SPM	mg/Nm^3	As per Annexure A				
		NOX	mg/Nm^3					
		SOX	mg/Nm^3					
	Actual emission (Stage-II)	SPM	mg/Nm^3					
		NOX	mg/Nm^3					
		SOX	mg/Nm^3					
	Ash dyke capacity as on 31st March							
	Ash pond capacity as on 31st March							
	Fund avalable in Ash Fund Account as on 31st March			As per Annexure B				
	Amount utilized from Ash Fund Account							
19	Detail of Ash utilization % of fly ash produced		%	30.38	35.21	39.39	33.45	57.32
	Ash available as on 31st March *		LMT	34.83	28.90	32.06	29.84	30.34
	Ash utilized for construction of ash dyke		LMT	1.93	2.10	6.94	3.61	1.38
	Ash utilized within plant premise, other than construction of ash dyke		LMT	-	-	0.05	0.06	0.04
	Ash transported		LMT	-	-	-	5.16	3.39
	Average Distance **		Km	-	-	-	150	150
19.1	Conversion of value added product		(%)	24.75	27.88	0.31	0.20	0.30
19.2	For making roads &embarkment		(%)	-	-	-	17.29	11.17
19.3	Land filling		(%)	0.09	0.06	17.37	3.89	-
19.4	Used in plant site in one or other form or used in some other site		(%)	5.55	7.27	21.65	12.06	4.55
19.5	Any other use , Please specify		%	-	-	0.06	-	41.30
20	Cost of spares actually consumed		(Rs. Lakh)	1,196.64	1,194.54	375.92	1,386.75	1,824.97
21	Average stock of spares		(Rs. Lakhs)	17,300.95	16,632.41	16,716.81	17,313.00	19,684.20
22	Number of employees deployed in O&M		Nos.	751	612	520	478	433
22.1	- Executives		Nos.	394	343	321	318	309

22.2	- Non Executives	Nos.	357	269	199	160	124
22.3	- Corporate office	Nos.	2,568	2,241	2,016	1,815	1,728
23	Man-MW ratio	Man/MW	0.38	0.31	0.26	0.24	0.22
	Total billed amount		As per Annexure C				
	Total received amount within due date						
	Total amount received beyond due date						
	Total amount pending						
	Total amount under dispute						
	Total rebate given						
	Total LPSC recovered						
24	Generation Switchyard Details		07 Generator bays and 10 Transmission line,02 ICTbays,02 Bus coupler bays,01-Bus section bays,02 TBC bays. 10 Transmission line of 400KV ,Lucknow-408km,ADL2-202km,Anpara-28km,ALD1-225KM,Vindhyachal-1&2-3.34km,Rihand1-42.241km,Rihand2-43km,Fathehpur-299km,ald3-214km				
	No. of Bays voltagewise		24 bays of 400KV,16 bays of 132KV				
	ICT - nos and rating		2 ICT,100MVA each				
	Dedicated transmission line - voltage and length		Not Applicable				

* Total ash generated during the Financial Year given
** Weighted average distance of Ash Transported given

Annexure-V (C)

Name of Generating Station : SINGRAULI STPS
Stage: Stage-I (5 x 200 MW) + Stage-II (2 x 500 MW)
COD of Units/Station : 01.05.1988
Details of expenditure incurred from Compensation Allowance and Special Allowance during Tariff Period 2009-14

All Figs in Rs. Lakh

FY Year	Add-cap allowed by the Commission under the provision of Regulation 9(2)		Compensatory allowance allowed by the Commission, if any	Special allowance allowed by the Commission, if any	Income tax rate	Effective Compensatory allowance available for Expenditure	Effective Special allowance available for Expenditure	Details of Asset/Work wise Capitalisation based on the Expenditure allowed by the Commission in the tariff period 2009-14						Total Expenditure done under Special and Compensation Allowance	Capitalisation done which has not been claimed/ allowed in the tariff	Difference of Allowed vs Expenditure	Capital Spares	Total Addition during the year	Total Addition during the year as per duly audited Schedule of Fixed Asset	Variation if any to be reconciled /justified.
								Capitalisation out of add cap allowed under Regulation 9(2)		Capitalisation out of Compensation allowance in the stations wherever applicable		Capitalisation out of Special Allowance allowed in the stations where applicable								
	Net Basis	Liability included in (2)			(%)			Asset/work	Rs(Lakh)	Asset/work	Rs(Lakh)-Gross	Asset/work	(Rs. lakh)	(Rs. Lakhs)					
1	2	3	4	5	6	7 = 4* 6	8 = 5 * 6	9		10		11		12=10+11	13	14=(2+3+7+8)-(9+12+13)	15	16=9+12+13+15	17	18
2009-10	0.22	0.00	780.00	4000.00	33.99	514.88	2640.40	Replacement of ASEA and Jyoti Make 6.6 KV MOCBs with SF6 Vaccum Breaker for CHP Stage -II	0.22	MBOAs & other minor assets	101.12	Capitalization of R&M works	1825.48	4005.62	0	-850.34	5632.07	.	8280.32	Loan ERV: (-) Rs 110.63 Lakh, IUT: (-) Rs 323.34 Lakh, Decap against items not allowed : (-) Rs 31.35, Decap of Spares: (-) Rs 812.92 lakh, Liability Reversal: (-) Rs 1.32 Lakh, Decap of GTs: (-) Rs 78.02 Lakh
												GENERATOR TRANSFORMER,, St-II	2079.01							
								Total	**0.22**	**Total**	**101.12**	**Total**	**3904.50**							
2010-11	7.79	0.00	650.00	5286.00	33.22	434.08	3530.10	LIQUID WASTE TREATMENT PLANT	7.79	MBOAs & Other minor asssets	432.29	Capitalization of R&M works	1058.64	1490.93	0	2473.25	2839.21	4337.93	3693.72	Loan ERV: Rs 85.37 Lakh, IUT: Rs 0.20 Lakh, Decap against items not allowed : (-) Rs 104.71 lakh, Decap of Spares: (-) Rs 608.14 lakh, Decap of MBOAs: (-) Rs 16.93 Lakh.
								Total	**7.79**	**Total**	**432.29**	**Total**	**1058.64**							
2011-12	32.94	0	650	5588.36	32.45	439.11	3775.22	Ash Dyke Package Lagoon St-I	32.94	MBOAs & Other Assets	222.92	Capitalization of R&M works	1128.95	1842.60	0	2371.72	1854.06	3729.84	3246.78	Loan ERV: Rs 537.76 Lakh, Liability Reversal: (-) Rs 44.23 Lakh,, Decap of Spares: (-) Rs 849.04 lakh, Decap of MBOAs: (-) Rs 132.03 Lakh, Decap of Condemned Assets: (-) Rs 3.99 lakh, Condemned Assets: Rs 13.08 lakh, lakh, IUT: (-) Rs 4.60 Lakh Other Decap (SAP) = - 5.82 lakhs
												GT 21 KV Busduct	46.19							
												Renovation of relay panel of CHP St-II (including ACSF panel)	352.91							
												Clorine leak absorption system	14.22							
												Retrofitting of microprocessor based conversion kit control in stock make gravimetric feeders in 3x 200MW units	77.65							
								Total	**32.94**	**Total**	**222.68**	**Total**	**1619.92**							
2012-13	0	0	650	5908.01	32.45	439.11	3991.16			MBOAs & Others	474.47	Capitalization of R&M works	3453.35	4131.00	0.00	299.26	3399.63	7530.63	5523.45	Loan ERV: Rs 267.43 Lakh, Decap of Spares: (-) Rs 2589.36 lakh, Decap of MBOAs: (-) Rs 18.67 Lakh, IUT: Rs 976.78 Lakh, Decap against items not allowed : (-) Rs 637.55 lakh, Other Decap (-) Rs 5.82 Lakhs
												Dyke Sub laggoning civil work	203.18							
								Total	**0.00**	**Total**	**474.47**	**Total**	**3656.53**							
2013-14	0	133.7	325.00	9368.93	33.99	214.53	6184.43	LEASEHOLD LAND-PLANT	133.7	MBOAs & Other assets	1122.41	Capitalization of R&M works	180.561	1302.971	0.00	5095.99	6231.95	7668.62	6230.08	Expenditure on 5 KM scheme as notified by MOP; Rs 206.61 Lakh, Loan ERV: Rs 313.20 Lakh, Decap of Spares: (-) Rs 898.87 lakh, Decap of MBOAs: (-) Rs 18.13 Lakh, IUT: Rs 0.79 Lakh, Decap against items not allowed : (-) Rs 1036.06 lakh,Liability Reversal: (-) Rs 6.08 Lakh.
								Total	**133.70**	**Total**	**1122.41**	**Total**	**180.56**							

Details of expenditure incurred from Compensation Allowance and Special Allowance during Tariff Period 2014-19

All Figs in Rs. Lakh

FY Year	Add-cap allowed by the Commission under the provision of Regulation 9(2)		Compensatory allowance allowed by the Commission, if any	Special allowance allowed by the Commission, if any	Income tax rate	Effective Compensatory allowance available for Expenditure	Effective Special allowance available for Expenditure	Details of Asset/Work wise Capitalisation based on the Expenditure allowed by the Commission in the tariff period 2014-19						Total Expenditure done under Special and Compensation Allowance	Capitalisation done which has not been claimed/ allowed in the tariff	Difference of Allowed vs Expenditure	Capital Spares	Total Addition during the year	Total Addition during the year as per duly audited Schedule of Fixed Asset	Variation if any to be reconciled /justified.
								Capitalisation out of add cap allowed under Regulation 9(2)		Capitalisation out of Compensation allowance in the stations wherever applicable		Capitalisation out of Special Allowance allowed in the stations where applicable								
	Net Basis	Liability included in (2)			(%)			Asset/work	Rs(Lakh)	Asset/work	Rs(Lakh)-Gross	Asset/work	(Rs. lakh)	(Rs. Lakhs)					2886.63
1	2	3	4	5	6	7 = 4* 6	8 = 5 * 6	9		10		11		12=10+11	13	14=(2+3+7+8)-(9+12+13)	15	16=9+12+13+15	17	18
2014-15	0		0.00	13713.85	20.96	0.00	10839.36		0			Actual Capitalization (Details as per Annexure)	11,443.20	11,443.20		-603.84	5887.08	12,880.19	15766.82	Decap of Spares: Part of Capital Cost=160.88 Loan ERV=47.91 Capital Spares =5,887.08 Inter Unit Transfer=7.76 Reversal of Liability=4.20 Decap of Spares: Not Part of Capital Cost=1,868.52 Decap of MBOAs: Not Part of Capital Cost=0.53 Decap R&M Asset=69.49
2015-16	648.86		0.00	14584.68	21.34	0.00	11472.08	Effluent Quality Monitoring Continuous Emission Monitoring System Fire Protection for ACSF & FOPH CCTV based surveillance system Total	34.62 272.66 140.58 201.00 648.9			Actual Capitalization (Details as per Annexure)	4,263.69	4,263.69		7208.39	7,967.63	12,880.19	8745.94	Decap of Spares: Part of Capital Cost=81.34 Loan ERV=87.21 Capital Spares =7,967.63 Inter Unit Transfer=991.11 Reversal of Liability=28.68 Decap of Spares: Not Part of Capital Cost=2,650.55 Decap of MBOAs: =263.16 5 KM Scheme=208.40
2016-17	9.09		0.00	15510.81	21.34	0.00	12200.56	Continuous Emission Monitoring CCTV based surveillance system Total	8.95 0.14 9.09			Actual Capitalization (As per IGAAP)(Details as per Annexure)	14,023.01	14,023.01		-1,822.46	5,407.34	19,439.44	19,381.99	Decap of Spares: Part of Capital Cost=721.55 Loan ERV=1.35 Capital Spares =5407.34 Inter Unit Transfer=1102.76 Reversal of Liability=0.18 Decap of Spares: Not Part of Capital Cost=50.87 Decap of MBOAs: =124.51 Asset Decap=261.75
2017-18	8.14			16495.75	21.34		12975.29	Effluent Quality Monitoring System Continuous Emission Monitoring Total	8.14 8.14			Actual Capitalization (As per IGAAP)(Details as per Annexure)	-	-	-	12,975.29	7,041.61	7,041.61	12,581.68	Decap of Spares: Part of Capital Cost=899.04 Capital Spares =7,041.61 Inter Unit Transfer=2.89 Reversal of Liability=51.59 Decap of Spares: Not Part of Capital Cost=318.12 Decap of MBOAs: =132.44
2018-19				17543.23	21.55%		13799.22					Actual Capitalization (As per IGAAP)(Details as per Annexure)	-	-		-13,799.22	7,587.25	7,587.25	32,087.60	Decap of Spares: Part of Capital Cost=1,038.03 Loan ERV=1,366.32 Capital Spares =7,587.25 Inter Unit Transfer=1,626.11 Reversal of Liability=9.75 Decap of Spares: Not Part of Capital Cost=156.51 Decap of MBOAs: =3,392.95

Details of expenditure incurred from Compensation Allowance and Special Allowance during Tariff Period 2019-24

All Figs in Rs. Lakh

FY Year	Add-cap allowed by the Commission under the provision of Regulation 26(2)	Compensatory allowance allowed by the Commission, if any	Special allowance allowed by the Commission, if any	Income tax rate	Effective Compensatory allowance available for Expenditure	Effective Special allowance available for Expenditure	Details of Asset/Work wise Capitalisation based on the Expenditure allowed by the Commission in the tariff period 2019-24			Total Expenditure done under Special and Compensation Allowance	Capitalisation done which has not been claimed/ allowed in the tariff	Difference of Allowed vs Expenditure	Capital Spares	Total Addition during the year	Total Addition during the year as per duly audited Schedule of Fixed Asset	Variation if any to be reconciled /justified.
							Capitalisation out of add cap allowed under Regulation 26(2)	Capitalisation out of Compensation allowance in the stations wherever applicable	Capitalisation out of Special Allowance allowed in the stations where applicable							

	Net Basis	Liability included in (2)			(%)			Asset/work	Rs(Lakh)	Asset/work	Rs(Lakh)-Gross	Asset/work	(Rs. lakh)	(Rs. Lakhs)						-1298.12
1	2	3	4	5	6	7 = 4* 6	8 = 5 * 6	9		10		11		12=10+11	13	14=(2+3+7+8)-(9+12+13)	15	16=9+12+13+15	17	18
2019-20			NA	19000	17.47%	NA	14945.10			NA		Actual Capitalization (As per IGAAP)(Details as per Annexure)	22,072.44	22,072.44		-7,127.35	4,010.41	26,082.85	24784.72786	Decap of Spares: Part of Capital Cost¤1,609.63 Loan ERV¤ Capital Spares ¤4,010.41 Inter Unit Transfer¤631.68 Reversal of Liability¤1.56 Decap of Spares: Not Part of Capital Cost¤141.10 Decap of MBOAs: ¤177.51
2020-21			NA	19,000.00	0.17	NA	14,945.10			NA		Actual Capitalization (As per IGAAP)(Details as per Annexure)	10,145.14	10,145.14		4,799.95	7,872.35	18,017.49	17,299.07	Decap of Spares: Part of Capital Cost¤(1,626.01) Loan ERV¤417.27 Capital Spares ¤7,872.35 Inter Unit Transfer¤1,219.68 Reversal of Liability¤(2.48) Decap of Spares: Not Part of Capital Cost¤(636.07) Decap of MBOAs: ¤(90.82)

Annexure-VI (C)

DETAILS OF WATER CHARGES

Name of the Company: **NTPC Ltd.**

Name of the Power Station and Stage/Phase: **Singrauli Super Thermal Power Station (2000 MW)**

(Rs. In Lakhs)

Sl.No.	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
1	2	3	4	5	6	7
(A)	**Plant**	Singrauli Super Thermal Power Station				
1	Type of Plant	Coal Based Plant				
2	Type of Cooling Tower	NA				
3	Type of Cooling Water System	Open Cycle				
4	Any Special Features which may increase/reduce water consumption					
(B)	**Quantum of Water : (Cubic Meter)**					
5	Contracted Quantum (M3)	6,64,18,321	6,64,18,321	6,64,18,321	6,64,18,321	6,64,18,321
6	Allocation of Water (M3)	6,64,18,321	6,64,18,321	6,64,18,321	6,64,18,321	6,64,18,321
7	Actual water Consumption (M3)	4,96,66,727	4,97,21,666	5,71,21,000	4,63,74,000	4,33,79,048
8.	Rate of Water Charges (Rs/m3)	1.71	1.75	1.63	2.01	2.15
9	Other charges/Fees , if paid as part of Water Charges					
10	**Total water Charges Paid (Rs Lakhs)**	**847.71**	**868.61**	**932.47**	**932.47**	**932.47**

Annexure-VI (D)

Detais of capital Spares

Name of Company : NTPC Limited
Name of Power station :Singrauli STPS

(Rs. In Lakhs)

Sl . No.	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
(A)	Details of capital spares in Opening stock	42,597.93	48,442.56	56,520.64	60,191.20	66,938.44
(B)	Details of capital spares procured during the year	7,041.27	9,272.61	4,046.49	8,134.00	7,613.08
(C)	Details of capital spares consumed during the year	1,196.64	1,194.54	375.92	1,386.75	1,824.97
(D)	Details of capital spares closing at the end of the year	48,442.56	56,520.64	60,191.20	66,938.44	72,726.55

Annexure-XIX

Name of Utility:	**NTPC Ltd.**
Name of Generating Station:	**Singrauli Super Thermal Power Station**
Station Configuration:	**5 X 200 +2 X 500 = 2000 MW**
Capacity (MW):	**2000 MW**
COD:	**01.05.1988**

S.N	Particulars	Unit	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20***	2020-21***	2021-22***
1	Plant Availability Factor (PAF)	%	90.14	88.52	83.93	92.05	90.91	92.44	97.34	89.55	94.05	94.45	83.73	94.62	89.44	86.07	87.37	87.85	84.89	83.47
2	Plant Load Factors (PLF)	%	90.20	88.49	83.83	91.67	90.72	92.83	96.54	88.71	92.43	91.58	82.86	92.61	86.87	84.37	84.46	87.28	85.39	82.50
2a	Loading Factor ^	%											90.57			90.57	92.07	93.12	93.73	97.28
3	Scheduled Energy	MU	14,520.44	14,256.59	13,499.74	14,893.58	14,661.70	14,979.28	15,514.02	14,336.46	15,003.75	14,851.75	13,387.05	14,942.27	13,968.26	13,538.05	13,560.00	14,213.04	13,738.52	13,226.49
4	Scheduled Generation (ex-bus)	MU	14,520.44	14,256.59	13,499.74	14,893.58	14,661.70	14,979.28	15,514.02	14,336.46	15,003.75	14,851.75	13,387.05	14,942.27	13,968.26	13,538.05	13,560.00	14,213.04	13,738.52	13,226.49
5	Actual Generation (Gross)	MU	15,803.29	15,502.75	14,687.14	16,105.23	15,893.43	16,264.42	16,913.15	15,584.51	16,193.94	16,045.25	14,516.20	16,270.60	15,218.99	14,781.76	14,798.12	15,332.83	14,959.52	14,454.05
6	Actual Generation (ex-bus)	MU	14,703.98	14,400.87	13,623.89	14,984.00	14,762.98	15,098.44	15,692.70	14,467.80	15,035.84	14,881.89	13,431.34	15,053.72	13,998.46	13,616.40	13,610.11	14,120.18	13,735.22	13,263.34
7	Actual energy supplied to beneficiaries (Long Term, Medium Term and Short	MU	14,703.98	14,400.87	13,623.89	14,984.00	14,762.98	15,098.44	15,692.70	14,467.80	15,035.84	14,881.89	13,431.34	15,053.72	13,998.46	13,452.67	13,504.15	13,190.45	13,104.16	12,692.64
8	Quantum of coal consumption	MT	1,03,14,328	1,03,93,972	97,84,606	1,11,56,907	1,13,13,300	1,12,98,712	1,20,06,983	1,10,31,140	1,13,13,665	1,10,10,232	1,02,39,271	1,18,32,273	1,04,80,884	1,00,91,168	92,48,878	99,91,141	94,83,653	94,62,482
9	Value of coal	Rs. Lakh																		
10	Specific Coal Consumption	kg/kWh	0.65	0.67	0.67	0.69	0.71	0.69	0.71	0.71	0.70	0.69	0.71	0.73	0.69	0.68	0.63	0.65	0.63	0.65
11	Gross Calorific Value of Coal	(Kcal/ Kg)	3,692.53	3,576.12	3,596.98	3,456.49	3,357.69	3,441.09	3,367.04	3,370.75	3,418.04	3,477.32	3,370.14	3,278.01	3,507.20	3,518	3,819	3610*	3717*	3675*
12	Heat Contribution of Coal	(Kcal/ kWh)	2,410.00	2,397.65	2,396.32	2,394.49	2,390.08	2,390.49	2,390.33	2,385.91	2,387.96	2,386.13	2,377.19	2,383.83	2,415.31	2,401.72	2,386.94	2,352.34	2,356.41	2,405.87
13	Cost Of Specific Coal Consumption – Finally admitted by CERC (Ex-Bus)	(Rs./kWh)																		
14	Quantum of Oil Consumption	(KL)	4.800	4.868	6.407	4.210	4.682	3.850	4.098	10.177	3.381	3.975	6.621	6.398	6.815	3.728.00	3.723.00	3,829.00	4,439.00	4,944.00
15	Value of Oil	(Rs. lakh)																		
16	Gross calorific value of oil	(kcal/lit)	9,972	9,986	9,980	9,981	9,979	9,980	9,978	9,980	9,981	9,978	9,980	9,985	9,980	10,006.72	10,179.74	10,474.26	10,500.00	9,760.13
17	Specific Oil Consumption	(ml/kWh)	0.30	0.31	0.44	0.26	0.29	0.24	0.24	0.65	0.21	0.25	0.46	0.39	0.45	0.25	0.25	0.25	0.30	0.34
18	Cost Of Specific Oil Consumption – Finally admitted by CERC	(Rs./kWh)																		
19	Heat Contribution of Oil	(Kcal/ kWh)	3.03	3.14	4.35	2.61	2.94	2.36	2.42	6.52	2.08	2.47	4.55	3.93	4.47	2.52	2.56	2.62	3.12	3.34
20	Station Heat Rate	(Kcal/ kWh)	2,413	2,401	2,401	2,397	2,393	2,393	2,393	2,392	2,390	2,389	2,382	2,388	2,420	2,404	2,390	2,355	2,360	2,409
21	Auxiliary Energy Consumption	(%)	6.96	7.11	7.24	6.96	7.11	7.17	7.22	7.17	7.15	7.25	7.29	7.32	7.82	7.71	7.87	7.77	8.05	8.11
22	Debt at the end of the year	(Rs. Crore)	100.28	82.34	69.60	114.42	104.02	100.90	99.28	99.52	99.54	99.52	99.82	103.92	105.65	107.37	114.85	107.33	137.70	139.75
23	Equity - Average	(Rs. Crore)	574.18	580.36	583.95	596.94	610.11	610.02	609.33	608.29	606.48	603.73	601.74	601.41	599.75	595.50	583.31	369.38	376.74	384.82
24	Working Capital – finally admitted by	(Rs. Crore)	386.33	390.10	394.00	399.82	403.49	575.66	585.26	594.89	603.73	619.59	673.96	689.60	690.46	715.39	728.46	719.86	730.35	741.03
25	Capital cost – finally admitted by CERC	(Rs. Crore)	1153.67	1174.29	1186.24	1229.55	1273.4	1273.76	1271.43	1268.0	1261.93	1252.77	1,246.67	1,247.09	1,243.79	1,235.46	1,211.14	1,231.26	1,255.79	1,282.73
26	Capacity Charges/ Annual Fixed Cost (AFC)	(Rs. Crore)	377.51	377.98	386.30	396.47	405.72	612.20	639.55	658.82	684.25	743.52	779.12	822.92	835.78	878.30	917.93	959.85	988.71	1,018.88
27	(a) Return on equity – post tax (admitted by CERC upto 2009) and Pre Tax post 2009												-	-	-	-	-	-	-	-
28	Absolute value	(Rs. Crore)	80.38	81.25	81.75	83.57	85.41	143.24	141.42	139.57	139.15	141.76	118.00	118.51	118.18	117.34	115.25	69.38	70.76	72.28
29	Rate	(%)	14.000%	14.000%	14.000%	14.000%	14.000%	23.481%	23.210%	22.944%	22.944%	23.481%	19.61%	19.71%	19.71%	19.71%	19.76%	18.78%	18.78%	18.78%
30	(b) interest on Loan																			
31	Absolute value	(Rs. Crore)	9.01	7.02	5.70	6.12	6.32	4.83	3.66	3.44	5.08	7.34	8.73	9.01	9.23	8.56	9.07	8.85	10.18	11.53
32	Rate – Weighted Average Rate	(%)	8.51%	7.68%	7.50%	6.65%	5.78%	4.7375%	3.66%	3.46%	5.10%	7.38%	8.76%	8.85%	8.81%	8.04%	8.16%	8.30%	8.31%	8.31%
33	(c) Depreciation (finally allowed by CERC)																			
34	Absolute value	(Rs. Crore)	43.49	44.27	44.72	43.59	41.66	2.055	1.85	0.01	0.02	0.02	0.02	0.16	0.32	0.34	0.34	0.64	1.94	3.36
35	AAD																			
36	Rate	(%)	Spread over life																	
37	(d) Interest on working Capital																			
38	Absolute value	(Rs. Crore)	39.60	39.985	40.39	40.98	41.36	70.52	71.69	72.87	73.96	75.90	90.98	93.10	93.21	96.58	98.34	86.74	88.01	89.29
39	Rate	(%)	10.25%	10.25%	10.25%	10.25%	10.25%	12.25%	12.25%	12.25%	12.25%	12.25%	0.14	0.14	0.14	0.14	0.14	12.05	12.05	12.05
40	(e) Operation and maintenance cost (finally admitted by CERC)																			
41	Absolute value	(Rs. Crore)	197.60	205.5	213.7	222.2	231.2	312.00	329.8	348.7	368.7	389.8	424.25	456.29	459.73	490.53	519.49	604.24	627.83	652.42
42	Rate	(%)																		
43	(f) Compensation Allowances	(Rs. Crore)	-	-	-	-	-	7.80	6.50	6.50	6.50	3.25	-	-	-					
44	(g) Special Allowance	(Rs. Crore)						40.00	52.86	55.88	59.08	93.69	137.14	145.85	155.11	164.96	175.43	190.00	190.00	190.00
45	h) Supplementary Tariff - Emission																			
46	Absolute value	(Rs. Crore)	Not Applicable																	
47	Rate	(%)																		
48	i) Ash Utilisation Expenses	(Rs. Crore)																	61.95	34.41
49	AFC	(Rs./ kWh)	0.29	0.29	0.30	0.31	0.31	0.44	0.46	0.48	0.50	0.54	0.56	0.59	0.60	0.63	0.66	0.69	0.71	0.74
50	Energy Charge	(Rs./kWh)	0.79	0.86	0.86	0.89	1.02	1.04	1.35	1.31	1.19	1.17	1.23	1.37	1.44	1.40	1.39	1.40	1.53	1.52
51	Supplemental Energy Charges - Emission Control	(Rs./kWh)	Not Applicable																	
52	Total tariff	(Rs. kWh)	1.09	1.16	1.16	1.20	1.34	1.48	1.81	1.79	1.68	1.71	1.79	1.97	2.04	2.04	2.05	2.10	2.24	2.26
53	Revenue realisation before tax	(Rs. Crore)																		
54	Revenue realisation after tax	(Rs. Crore)																		
55	Profit/ loss	(Rs. Crore)	203.05	307.01	339.08	378.28	204.88	234.54	523.58	311.91	631.31	313.42	101.82	180.81	378.62	453.92	447.63	634.95	342.96	283.20
56	DSM Generation	(MU)	183.54	144.27	124.15	90.42	101.28	119.16	178.68	131.34	32.09	30.14	44.29	111.45	30.19	78.34	50.11	(92.86)	(3.30)	36.85
57	DSM Rate	(Rs/kWh)																		
58	Revenue from DSM	(Rs. Crore)				(32.13)	(33.94)	(38.36)	(44.73)	(37.39)	(19.39)	(13.20)	(15.63)	(26.65)	(9.88)	(25.03)	(15.91)	(2.73)	0.37	(9.42)
59	Compensation received for operation below NAPAF	(Rs. Crore)																-	-	-
60	Part load Compensation received from beneficiriaes	(Rs. Crore)																-	-	-
61	Amount received from SCED	(Rs Crore)																22.68	7.09	3.83

*** Tariff related details for the period 2019-20 to 2021-22 is as per Petition filed before CERC
** GCV of coal as received minus 85 kCal/Kg
^ Additional data related to Loading factor (%) submitted
DSM Revenue (-)Received / (+) Paid

Annexure-XXII

DETAILS OF EMISSION CONTROL SYSTEM :

Generating company: NTPC Ltd
Name of Generating station: Singrauli Super Thermal Power Station
Installed Capacity (MW) : 2000 MW

Type of Emission Control System: Wet Based FGD System
Under Operation/Anticipated Operation Date: FGD not yet operational

S.No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
A							
1	Gross Generation	MU	14,782	14,798	15,333	14,960	14,454
2	Auxiliary Consumption - emission control	MU	NA	NA	NA	NA	NA
	Auxiliary Consumption - emission control	%	NA	NA	NA	NA	NA
3	Auxiliary Consumption (Normative)	%	NA	NA	NA	NA	NA
4	Hours of Operation	Hrs	NA	NA	NA	NA	NA
5	O&M Expenses (Actual) with Breakup as per format	Rs. Crore	NA	NA	NA	NA	NA
6	Other maintenace spares consumed	Rs. Crore	NA	NA	NA	NA	NA
7	Initial Spares consumed	Rs. Crore	NA	NA	NA	NA	NA

S.No.	Particulars	Units	2017-18		2018-19		2019-20		2020-21		2021-22	
			Investment Approval	Approved	Investment Approval	Approved	Investment Approval	Approved	Investment Approval	Approved	Investment Approval	Approved
1	Capital Cost of Emission Control System											
1.1	Hard Cost (incl GST)	Rs. Crore										1,207.86
1.1.1	Civil Works	Rs. Crore										Incl Above
1.1.2	Plant and Machinery and others	Rs. Crore										Incl Above
1.1.3	Initial Spares procured	Rs. Crore										Incl Above
1.2	IDC	Rs. Crore										83.49
1.3	IEDC	Rs. Crore										36.24
1.4	Others. Pls specify	Rs. Crore										
1.4	Completed Cost as per Investment Approval	Rs. Crore										1,327.59

Annexure- XXIII

DETAILS OF REAGENT USED FOR EMISSION CONTROL:

Generating company: NTPC Ltd
Name of Generating station: Singrauli Super Thermal Power Station
Installed Capacity (MW) : 2000 MW

Reagent Type: Limestone
Type of Emission Control System: Wet based FGD system yet to be operational

S.No.	Particulars	Unit	2017-18	2018-19	2019-20	2020-21	2021-22
A.							
1	Average Stock of Reagent	MT	NA	NA	NA	NA	NA
2	Maximum Storage at Site	MT	NA	NA	NA	NA	NA
3	Maximum Storage at Site	Days	NA	NA	NA	NA	NA
B.			NA	NA	NA	NA	NA
1	Opening Stock of Reagent as on 1st April	MT	NA	NA	NA	NA	NA
2	Purity of Opening Stock (Reagent)	%	NA	NA	NA	NA	NA
3	Quantity of Reagent Supplied by Supplier	MT	NA	NA	NA	NA	NA
4	Adjustment (+/-) in Quanity Supplied	MT	NA	NA	NA	NA	NA
5	Net Quantity of Reagent Received	MT	NA	NA	NA	NA	NA
6	Total Cost of Reagent Received	Rs. Crore	NA	NA	NA	NA	NA
7	Cost of Reagent Received	Rs./MT	NA	NA	NA	NA	NA
8	Qty of Reagent Consumed	MT	NA	NA	NA	NA	NA
9	Closing Stock of Reagent as on 31st March	MT	NA	NA	NA	NA	NA
10	Purity of Reagent received	%	NA	NA	NA	NA	NA
11	Gross Generation	MU	14,782	14,798	15,333	14,960	14,454
12	Fuel Type (coal/lignite)		Coal				
13	Sulphur content of Fuel	%	0.35	0.33	0.32	0.32	0.34
14	Gross SHR (Actual)	kCal/kWh					
15	Design SO2 removal efficiency (Applicable for Wet FGD)	%	SO2 Efficiency guaranty is taken considering applicable New Environmental norm of that plant.				
16	SO2 removal norm (100/200/600 mg/Nm3)	mg/Nm3	200 MW Units: 600; 500 MW Units: 200				
17	Weigthed Average Gross GCV of Fuel Received	kCal/kg	As per Annexure I				

NA = Not Applicable